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## Before the FEDERAL COMMUNICATIONS COMMISSION Washington, DC 20554

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In the Matter of

Federal-State Joint Board on Universal Service

Forward-Looking Mechanism for High Cost Support for Non-Rural LECs FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

CC Docket No. 96-45

CC Docket No. 97-160

## REPLY COMMENTS OF BELL ATLANTIC<sup>1</sup> ON III.C.1 PLATFORM

The comments demonstrate that the current proxy models, despite numerous revisions, still do not accurately represent customer locations or numbers of lines. This is a fundamental flaw that will prevent the models from calculating high cost support levels that are sufficient to preserve and advance universal service, as required by the Act.<sup>2</sup> The only approach that will satisfy the Act is to use actual data about loop lengths and customer lines to identify high cost areas.

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<sup>&</sup>lt;sup>1</sup> The Bell Atlantic telephone companies ("Bell Atlantic") are Bell Atlantic-Delaware, Inc.; Bell Atlantic-Maryland, Inc.; Bell Atlantic-New Jersey, Inc.; Bell Atlantic-Pennsylvania, Inc.; Bell Atlantic-Virginia, Inc.; Bell Atlantic-Washington, DC, Inc.; Bell Atlantic-West Virginia, Inc.; New York Telephone Company and New England Telephone and Telegraph Company.

<sup>&</sup>lt;sup>2</sup> See 47 U.S.C. Section 254(b)(5).

The sponsors of both the Hatfield model and the Benchmark Cost Proxy Model ("BCPM") admit that their models do not adequately identify customer location, which seriously undermines the accuracy of their estimates of loop costs.<sup>3</sup> Both promise another round of "enhancements" that will, this time, accurately represent the distribution of customers within a geographic area and assign those customers to the proper wire center. Hatfield proposes to refine its "clustering" algorithm with geocoded residence and business data to produce a number of clusters within a census block group ("CBG"), the size and location of the clusters, and the distance between customers within a cluster.<sup>4</sup> This will be followed by an even more ambitious effort to map individual cable strands to each customer location.<sup>5</sup> The BCPM will employ a "dynamic grid" approach that will break up census block data into "microgrids" that can then be reassembled

<sup>&</sup>lt;sup>3</sup> See Comments of AT&T and MCI ("AT&T/MCI") at pp. 5-6; Joint Comments of BellSouth, US West, and Sprint ("Joint Sponsors") at pp. 3-4.

<sup>&</sup>lt;sup>4</sup> See AT&T/MCI at p. 6.

<sup>&</sup>lt;sup>5</sup> See id. In actuality, however, cable strands typically follow roads and extend drop wire to specific customer locations. This is another example where a proxy model is likely to engineer a network that is a significant departure from reality and that produces distorted results.

into engineering service areas.<sup>6</sup> Both model advocates criticize the other's approach as either inaccurate, or not feasible given the available data.<sup>7</sup>

It is impossible for Bell Atlantic to evaluate these claims, since the sponsors provided very sketchy data about their new approaches at the August 27 and September 3 workshops, and since it is uncertain when they will provide complete modules for testing by the industry. Moreover, it is not clear that adequate data are available at the customer or grid cell level to support either of these approaches. For example, the sample data presented by Hatfield at the September 3 workshop indicated that 20 to 23 percent of the CBs within a CBG could not be geocoded, and 30 to 56 percent of the households within the coded blocks were missing. Hatfield also did not show how much of the population was in the excluded CBs. It should be noted that a significant portion of the households in rural areas are not currently geocoded, and the completion of nationwide geocoding would be both costly and burdensome.8

Until these modules are made available with complete data necessary to run and test the models, the Commission cannot assume that the problems with the existing models will be cured, based on a promise of even greater data

<sup>&</sup>lt;sup>6</sup> See Joint Sponsors at pp. 4-13.

<sup>&</sup>lt;sup>7</sup> See AT&T/MCI at pp. 4-5; Joint Sponsors at pp. 17, 28-29.

<sup>&</sup>lt;sup>8</sup> See, e.g., TDS at p. 12.

granularity and algorithmic complexity. The only approach that ensures accurate calculation of the amount of universal service support required to serve a given area and to meet the Act's requirement that universal service support mechanisms be "sufficient" is to use actual wire center data to determine line counts and loop lengths.<sup>9</sup>

Even if the Commission adopts a model that purports to identify customers by CBG, census block, or grid cell, it should aggregate the data by wire center for purposes of calculating universal service support. 10

Disaggregating support by smaller geographic areas such as CBGs, census blocks, or smaller areas would produce arbitrary distributions of customers, because any model would assign customers to those areas based on a statistical or hypothetical basis. Such an arbitrary assignment of customer locations would not identify accurately the costs that the LECs incur in each wire center to provide universal service. In addition, disaggregating support by geographic areas smaller than wire centers would make the universal service fund extremely burdensome to administer, because there would be thousands of support amounts that would have to be correlated with CBG or census block boundaries.

<sup>&</sup>lt;sup>9</sup> GTE agrees that the most accurate method of determining line counts is to use actual LEC wire center line count information. *See* GTE at p. 13.

<sup>&</sup>lt;sup>10</sup> See, e.g., WorldCom at pp. 1-2; GTE at p. 3.

The Commission should make it clear that the sponsor of a model has the burden of showing that the model accurately represents the forward-looking cost of providing universal service. AT&T/MCI try to mask the obvious inadequacies of the Hatfield model by shifting the burden to LECs to explain why their actual networks differ from the hypothetical networks generated by the proxy models.<sup>11</sup> This is based on the erroneous assumption that the differences between the data produced by the Hatfield model and the actual loop configurations represent "inefficiencies" in the existing network, rather than the failure of the proxy model correctly to identify customer locations, to home the customers to the correct wire centers, and to take into account all environmental and engineering factors that affect the design and construction of loop facilities. 12 The fact that AT&T/MCI consider it unfair to expect a proxy model to come within 10 percent of the actual number of customer lines<sup>13</sup> shows they have no confidence in the ability of a proxy model to accurately represent the facilities necessary to support universal service.

<sup>&</sup>lt;sup>11</sup> See AT&T/MCI at pp. 10-11.

<sup>&</sup>lt;sup>12</sup> As the Joint Sponsors demonstrate, the Hatfield 4.0 model "underbuilds plant" by 40% due to the inaccurate dispersion of customers in low density CBGs. See Joint Sponsors at Attachment B.

<sup>&</sup>lt;sup>13</sup> See id. at pp. 13-14.

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The model sponsors, and ultimately, the Commission, have the burden of showing that a proxy model is a reasonable estimate of the forward-looking cost of providing universal service. The Commission should continue to use consistency with actual data as a test of the credibility of the proxy models.<sup>14</sup>

## Conclusion

The Commission should calculate universal service support at the wire center level, based on actual data on loop lengths and line counts.

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<sup>&</sup>lt;sup>14</sup> See Further Notice of Proposed Rulemaking, FCC 97-256 (rel. July 18, 1997) at para. 53 ("Reasonable estimates of lines at the wire center and study area level will allow us to verify that the models' means of estimating line count leads to accurate results.").

## **CERTIFICATE OF SERVICE**

I hereby certify that on this 10th day of September, 1997, a copy of the foregoing "Reply Comments of Bell Atlantic On III.C.1 Platform" was served by first class U.S. mail, postage prepaid, on the parties listed on the attached service list.

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